



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,545	09/12/2003	Arto Palin	27592-00431-US	6422
30678 7590 08/04/2009 CONNOLLY BOVE LODGE & HUTZ LLP 1875 EYE STREET, N.W. SUITE 1100 WASHINGTON, DC 20006				
EXAMINER AJAYI, JOEL				
ART UNIT 2617		PAPER NUMBER		
MAIL DATE 08/04/2009		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/660,545

Applicant(s)

PALIN ET AL.

Examiner

JOEL AJAYI

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-13, 15-17 and 19-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-13, 15-17, 19-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This action is in response to Applicant's amendment filed on May 01, 2009. **Claims 1, 3-13, 15-17, 19-24** are still pending in the present application. **This action is made FINAL.**

Response to Arguments

Applicant's arguments filed May 01, 2009 have been fully considered but they are not persuasive.

Applicant argues foregoing retransmission of the data packet when said number of consecutive times exceeds a predetermined threshold and when the detecting detects an acknowledgement transmission from each of the plurality devices except for said particular device.

The examiner respectfully disagrees with the applicant's statement and asserts that Davies discloses that the slave stations transmit a positive acknowledgement for data that does not need retransmission (paragraph 22). However, Davies also discloses that retransmission is suppressed (foregone) when the validity of the data has expired (a predetermined time threshold) (paragraph 21).

In view of the above, the rejection is maintained as repeated below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 3, 4, 6-13, 15, 17, 19, 21, 22, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Davies (U.S. Patent Application Number: 2001/0055356)** in view of **Rosen et al. (U.S. Patent Application Number: 2005/0031051)**, and further in view of **Mcernan et al. (U.S. Patent Application Number: 2001/0029523)**.

Consider **claim 1**; Davies discloses a method of controlling a multicast transmission, comprising:

transmitting a data packet to a plurality of devices (paragraph 22); detecting the reception of any acknowledgement transmissions, wherein each acknowledgement transmission indicates reception of the data packet by a respective one of the plurality of devices (paragraph 22);

retransmitting the data packet to at least one of the plurality of devices when an acknowledgement is not detected for each of the plurality of devices (paragraph 22).

Davies fails to disclose: transmitting a data packet across an ultra wideband (UWB) wireless network; counting the number of consecutive times an acknowledgement packet is not received from a particular one of the plurality of devices.

In the same field of endeavor Rosen discloses: transmitting a data packet across an ultra wideband (UWB) wireless network (paragraph 5); counting the number of consecutive times an acknowledgement packet is not received from a particular one of the plurality of devices (paragraph 131, lines 1-13).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Rosen into the method of Davies in order to increase communication efficiency.

Davies and Rosen disclose the claimed invention except: foregoing retransmission of the data packet when said number of consecutive times exceeds a predetermined threshold and when the detecting step detects an acknowledgement transmission from the each of the plurality of devices except for said particular device.

In an analogous art McTernan discloses foregoing retransmission of the data packet when said number of consecutive times exceeds a predetermined threshold (time threshold) and when the detecting step detects an acknowledgement transmission from the each of the plurality of devices except for said particular device (paragraph 23; paragraph 71, lines 13-27).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Davies and Rosen by including the foregoing

of a retransmission of packets when a threshold has been exceeded and an acknowledgment has not been received from all the devices as taught by McTernan for the purpose of providing a richer experience and maximizing the processing power of devices.

Consider **claim 3**; Rosen discloses receiving any acknowledgement transmissions from the UWB wireless network (paragraph 5; paragraph 131, lines 1-13).

Consider **claims 4, 15, 19, 22**; Davies discloses receiving any acknowledgement transmissions from a transmission media different from the UWB wireless network (paragraph 22).

Consider **claim 6**; Davies discloses correlating signals with a predetermined acknowledgement sequence during a time slot allocated to the devices for acknowledgement transmission (paragraph 22).

Consider **claim 7**; Rosen discloses generating a correlation signal from the predetermined acknowledgement sequence and received transmissions; and counting the number of times the correlation signal exceeds a predetermined threshold (paragraph 131, lines 1-13).

Consider **claim 8**; Davies discloses that a time division multiple access (TDMA) time slot allocated to upstream transmissions from the plurality of devices (paragraph 22).

Consider **claim 9**; Rosen discloses retransmitting the data packet when the number of times the correlation signal exceeds the predetermined threshold is less than the number of the plurality of devices (paragraph 131, lines 1-13).

Consider **claim 10**; Davies and Rosen discloses generating a correlation signal from the predetermined acknowledgement sequence and received transmissions; and determining whether the correlation signal exceeds a predetermined threshold during each of a plurality of

time division multiple access (TDMA) time slots, wherein each of the TDMA time slots are allocated to respective one of the plurality of devices (Davies, paragraph 22; Rosen, paragraph 131, lines 1-13).

Consider **claim 11**; Davies discloses retransmitting the data packet when the correlation signal fails to exceed the predetermined threshold during each of the plurality of time division multiple access (TDMA) time slots (paragraph 22).

Consider **claim 12**; Davies and Rosen discloses counting the number of consecutive times an acknowledgement packet is not received from a particular one of the plurality of devices; and foregoing retransmission of the data packet when: the correlation signal fails to exceed the predetermined threshold during each of the plurality of time division multiple access (TDMA) time slots, and said number of consecutive times exceeds a second predetermined threshold (Davies, paragraph 22; Rosen, paragraph 131, lines 1-13).

Consider **claim 13**; Davies discloses a wireless communication device comprising: transmitting to a plurality of devices; the retransmission packet being previously transmitted across the wireless network (paragraph 22); a retransmission controller configured to receive one or more acknowledgement transmission from the plurality of devices (paragraph 22); wherein the retransmission controller is further configured to cause the retransmission packet to the plurality of devices when an acknowledgement is not detected for each of the plurality of devices (paragraph 22).

Davies fails to disclose: a retransmission buffer configured to store a retransmission packet; transmitting a data packet across an ultra wideband (UWB) wireless network; counting

the number of consecutive times an acknowledgement packet is not received from a particular one of the plurality of devices.

In the same field of endeavor Rosen discloses a retransmission buffer configured to store a retransmission packet (paragraph 137, lines 1-4); transmitting a data packet across an ultra wideband (UWB) wireless network (paragraph 5); counting the number of consecutive times an acknowledgement packet is not received from a particular one of the plurality of devices (paragraph 131, lines 1-13).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Rosen into the method of Davies in order to increase communication efficiency.

Davies and Rosen disclose the claimed invention except: foregoing retransmission of the data packet when said number of consecutive times exceeds a predetermined threshold and when the detecting step detects an acknowledgement transmission from the each of the plurality of devices except for said particular device is detected.

In an analogous art Mcternan discloses foregoing retransmission of the data packet when said number of consecutive times exceeds a predetermined threshold (time threshold) and when the detecting step detects an acknowledgement transmission from the each of the plurality of devices except for said particular device is detected (paragraph 23; paragraph 71, lines 13-27).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Davies and Rosen by including the foregoing of a retransmission of packets when a threshold has been exceeded and an acknowledgment has

not been received from all the devices as taught by McTernan for the purpose of providing a richer experience and maximizing the processing power of devices.

Consider **claim 17**; Davies discloses a method of controlling a multicast transmission, comprising:

Means for transmitting a data packet to a plurality of devices (paragraph 22); means for detecting the reception of any acknowledgement transmissions, wherein each acknowledgement transmission indicates reception of the data packet by a respective one of the plurality of devices (paragraph 22); means for retransmitting the data packet to at least one of the plurality of devices when an acknowledgement is not detected for each of the plurality of devices (paragraph 22).

Davies fails to disclose: means for transmitting a data packet across an ultra wideband (UWB) wireless network; means for counting the number of consecutive times an acknowledgement packet is not received from a particular one of the plurality of devices.

In the same field of endeavor Rosen discloses: means for transmitting a data packet across an ultra wideband (UWB) wireless network (paragraph 5); means for counting the number of consecutive times an acknowledgement packet is not received from a particular one of the plurality of devices (paragraph 131, lines 1-13).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Rosen into the method of Davies in order to increase communication efficiency.

Davies and Rosen disclose the claimed invention except: means for foregoing retransmission of the data packet when said number of consecutive times exceeds a

predetermined threshold and when the detecting step detects an acknowledgement transmission from the each of the plurality devices except for said particular device.

In an analogous art McTernan discloses means for foregoing retransmission of the data packet when said number of consecutive times exceeds a predetermined threshold (time threshold) and when the detecting step detects an acknowledgement transmission from the each of the plurality devices except for said particular device (paragraph 23; paragraph 71, lines 13-27).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Davies and Rosen by including the foregoing of a retransmission of packets when a threshold has been exceeded and an acknowledgment has not been received from all the devices as taught by McTernan for the purpose of providing a richer experience and maximizing the processing power of devices.

Consider **claim 21**; Davies discloses a computer-readable medium encoded with processing instructions for implementing a method of controlling a multicast transmission, performed by a wireless communications device, the method comprising:

transmitting a data packet to a plurality of devices (paragraph 22); detecting the reception of any acknowledgement transmissions, wherein each acknowledgement transmission indicates reception of the data packet by a respective one of the plurality of devices (paragraph 22); retransmitting the data packet to at least one of the plurality of devices when an acknowledgement is not detected for each of the plurality of devices (paragraph 22).

Davies fails to disclose: transmitting a data packet across an ultra wideband (UWB) wireless network; counting the number of consecutive times an acknowledgement packet is not received from a particular one of the plurality of devices.

In the same field of endeavor Rosen discloses: transmitting a data packet across an ultra wideband (UWB) wireless network (paragraph 5); counting the number of consecutive times an acknowledgement packet is not received from a particular one of the plurality of devices (paragraph 131, lines 1-13).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Rosen into the method of Davies in order to increase communication efficiency.

Davies and Rosen disclose the claimed invention except: foregoing retransmission of the data packet when said number of consecutive times exceeds a predetermined threshold and when the detecting step detects an acknowledgement transmission from the each of the plurality of devices except for said particular device.

In an analogous art McTernan discloses foregoing retransmission of the data packet when said number of consecutive times exceeds a predetermined threshold (time threshold) and when the detecting step detects an acknowledgement transmission from the each of the plurality of devices except for said particular device (paragraph 23; paragraph 71, lines 13-27).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Davies and Rosen by including the foregoing of a retransmission of packets when a threshold has been exceeded and an acknowledgment has

not been received from all the devices as taught by McTernan for the purpose of providing a richer experience and maximizing the processing power of devices.

Consider **claim 24**; Rosen discloses that the retransmission controller (paragraph 137, lines 1-3) is further configured to cause the retransmission buffer to send the retransmission packet to the plurality of devices across the UWB wireless network when an acknowledgement is not detected for each of the plurality of devices (paragraph 5; paragraph 131, lines 1-11).

Claims 5, 16, 20, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Davies (U.S. Patent Application Number: 2001/0055356)** in view of **Rosen et al. (U.S. Patent Application Number: 2005/0031051)**, in view of **McTernan et al. (U.S. Patent Application Number: 2001/0029523)**, and further in view of **Gan et al. (U.S. Patent Application Number: 2002/0136268)**.

Consider **claims 5, 16, 20, 23**; Davies, Rosen, and McTernan fail to disclose that the different transmission media comprises Bluetooth.

In the same field of endeavor Gan discloses that the different transmission media comprises Bluetooth (paragraph 145, lines 5-14).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Gan into the method of Davies, Rosen, and McTernan in order to enhance performance using Bluetooth.

Conclusion

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Joel Ajayi whose telephone number is (571) 270-1091. The Examiner can normally be reached on Monday-Thursday from 7:30am to 5:00pm and Friday 7:30am to 4:00 pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Lester Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

/Joel Ajayi/

Examiner, Art Unit 2617

/Lester Kincaid/
Supervisory Patent Examiner, Art Unit 2617